MICHAEL CULLAN

Machine Learning Engineer

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⬡ Github (https://github.com/mcullan) | 🔗 LinkedIn (https://linkedin.com/in/mcullan)

▌Experience

Consulting ML Engineer
March 2022 - Current

- Helped client prototype applications for miniature computer vision devices.
- Helped client apply nonparametric Bayesian methods for financial modeling.

Comet ML

Machine Learning Engineer
Sep 2021 - Mar 2022

- Prototyped Machine Learning Ops/Engineering solutions for prospective and existing customers.
- Developed visualization and tracking tools for users to monitor model training, including for multi-node, multi-GPU deep learning.

The Data Incubator

Data Scientist in Residence
Apr 2019 - Aug 2021

- Taught post-graduate industry training courses in data science and analytics.
- Orchestrated deployments for web-based data science learning environments using Kubernetes.

Arizona State University

Graduate Research Assistant
Oct 2016 - Dec 2019

- Developed a new algorithm for self-supervised model selection for time series data.
- Research supported by a Field Museum Innovation Award.

University of Arizona MUSICA Lab

Undergraduate Research Assistant
Sep 2015 - May 2016

- Wrote Python scripts to preprocess multi-modal musical data for a live jazz performance AI.

▌Publications

Cullan, M., Sterner, B., and Lidgard, S., 2020. Controlling the error probabilities of model selection information criteria using bootstrapping

Fries, J., Weber, L., and Seelam et al., N., 2022. BIGBIO: A Framework for Data-Centric Biomedical Natural Language Processing

▌Skills

Data Science

Pandas - 6 years

Scikit-learn - 5 years

Spark - 3 years

Data Visualization

Matplotlib - 6 years

Shiny - 6 years

Tableau - 3 years

Machine Learning

Computer Vision - 7 years

MLOps - 5 years

Multi-GPU training - 2 years

NLP - 3 years

Pytorch - 3 years

Tensorflow - 4 years

Production and Cloud

AWS/GCP - 3 years

CI/CD - 3 years

Docker - 3 years

Git - 5 years

Kubernetes - 3 years

Programming Languages

Bash - 7 years

Python - 7 years

R - 6 years

SQL - 5 years

▌Education

MS Statistics
Arizona State University
2016 - 2019

BS Mathematics
University of Arizona
2012 - 2016